



**INVENTOR'S DECLARATION FOR  
PATENT APPLICATION**

below named inventors, we hereby declare that:

Our residence, post office address and citizenship are as stated below next to our names;

We believe we are the original, first and sole joint inventors of the subject matter which is claimed and for which a patent is sought on the invention entitled

**AUTOMATIC N2 PURGE SYSTEM FOR 300MM FULL AUTOMATION FAB**

the specification of which: (check one)

       is attached hereto.

X was filed on April 8, 2004  
under Attorney's Docket Number 24061.83 (TSMC2003-0893)  
as Application Serial No. 10/821,156  
and was amended on \_\_\_\_\_ (if applicable).

We hereby authorize the attorney of record to update this document to include Patent Office information as deemed necessary (i.e., filing date, serial number, etc.).

We hereby state that we have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

We acknowledge the duty to disclose information which is material to the patentability of this application in accordance with 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.



PATENT / DOCKET NO.: 24061.83 / TSMC2003-0893  
CUSTOMER NO.: 27683

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NAME OF INVENTOR: Ko-Pin Chang

INVENTOR'S SIGNATURE: Ko - Pin Chang

DATED: 04/15/2004

RESIDENCE: Annan District, Tainan City 709, Taiwan, R.O.C.

POST OFFICE ADDRESS: No. 11, Lane 223, Sec. 5, Fu-an Rd.  
Annan District, Tainan City 709, Taiwan, R.O.C.

CITIZENSHIP: Taiwan, R.O.C.

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FULL NAME OF INVENTOR: Jui-An Shih

INVENTOR'S SIGNATURE: Jui-An Shih

DATED: 04/15/2004

RESIDENCE: Sinsing District, Kaohsiung City 800, Taiwan, R.O.C.

POST OFFICE ADDRESS: No. 230, Bade 1<sup>st</sup> Rd.  
Sinsing District, Kaohsiung City 800, Taiwan, R.O.C.

CITIZENSHIP: Taiwan, R.O.C.

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FULL NAME OF INVENTOR: Hui-Tang Liu

INVENTOR'S SIGNATURE: Hui-Tang Liu

DATED: 4/15/2004

RESIDENCE: Yongkang City, Tainan County 710, Taiwan, R.O.C.

POST OFFICE ADDRESS: No. 18-4, Lane 459, Yong 2<sup>nd</sup> St.  
Yongkang City, Tainan County 710, Taiwan, R.O.C.

CITIZENSHIP: Taiwan, R.O.C.

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FULL NAME OF INVENTOR: Simon Chang

INVENTOR'S SIGNATURE: Simon Chang DATED: ✓4/15/2004

RESIDENCE: Pingzhen City, Taoyuan County 324, Taiwan, R.O.C.

POST OFFICE ADDRESS: No. 3-3, Lane 26, Guanye N. Rd.  
Pingzhen City, Taoyuan County 324, Taiwan, R.O.C.

CITIZENSHIP: Taiwan, R.O.C.

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FULL NAME OF INVENTOR: Nain-Sung Lee

INVENTOR'S SIGNATURE: Nain-Sung Lee DATED: ✓4/15/2004

RESIDENCE: Shin Chu City, Taiwan, R.O.C.

POST OFFICE ADDRESS: 5F, No. 8, Lane 141, Shih Pin Rd.  
Shin Chu City, Taiwan, R.O.C.

CITIZENSHIP: Taiwan, R.O.C.

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FULL NAME OF INVENTOR: Yung-Chang Peng

INVENTOR'S SIGNATURE: Yung-Chang Peng DATED: ✓4/15/2004

RESIDENCE: Jhubei City, Hsinchu County 302, Taiwan, R.O.C.

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Jhubei City, Hsinchu County 302, Taiwan, R.O.C.

CITIZENSHIP: Taiwan, R.O.C.

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R-71782.1



Docket No. 24061.83 (TSMC2003-0893)  
Customer No. 42717

UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Ko-Pin Chang, et al.

Serial No.: 10/821,156

Filed: April 8, 2004

For: Automatic N2 Purge System for  
33MM Full Automation Fab

§ Docket Number: 24061.83  
§ (TSMC2003-0893)  
§ Examiner: To Be Determined  
§ Art Unit: 2125  
§ Conf. No.: 9194

Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

SUPPLEMENTAL SHEET TO POWER OF ATTORNEY

In accordance with 37 CFR 1.32 (c)(3) and with reference to the accompanying Power of Attorney, please recognize the following ten patent practitioners as being of record in this application.

Name	Registration Number
Jeffrey M. Becker	35,442
Timothy F. Bliss	50,925
Andrew S. Ehmke	50,271
Dave R. Hofman	55,272
Wei Wei Jeang	33,305
Julie M. Nickols	50,826
J. Andrew Lowes	40,706
David M. O'Dell	42,044
T. Murray Smith	30,222
Chien Wei Chou	41,672

Respectfully submitted,

David M. O'Dell  
Registration No. 42,044

Dated: 7-19-04

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Certificate of Mailing

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as First Class Mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date indicated below.

Bonnie Boyle  
Name  
7-19-04  
Date



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: § Attorney Docket No.: 24061.83  
Chang et al. § TSMC2003-0362  
  
Serial No.: Unknown § Customer No. 27683  
  
Filed: Herewith § Group Art Unit: Unknown  
  
For: AUTOMATIC N2 PURGE SYSTEM § Examiner: Unknown  
300MM FULL AUTOMATION FAB §

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

POWER OF ATTORNEY FOR PATENT APPLICATION

As a representative of the Assignee, Taiwan Semiconductor Manufacturing Company, Ltd., I hereby appoint the following attorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

David L. McCombs (Reg. No. 32,271); Jeffrey M. Becker (Reg. No. 35,442); James R. Bell (Reg. No. 26,528); Timothy F. Bliss (Reg. No. 50,925); Randall C. Brown (Reg. No. 31,213); Randall E. Colson (Reg. No. 40,566); Michael A. Davis, Jr. (Reg. No. 35,488); Andrew S. Ehmke (Reg. No. 50,271); Priscilla Ferguson (Reg. No. 42,531); Sarah T. Harris (Reg. No. 35,891); William E. Hickman (Reg. No. 46,771); David R. Hofman (Reg. No. P-55,727); Rita M. Irani (Reg. No. 31,028); Wei Wei Jeang (Reg. No. 33,305); Warren B. Kice (Reg. No. 22,732); J. Andrew Lowes (Reg. No. 40,706); Todd Mattingly (Reg. No. 40,298); Julie Nickols (Reg. No. 50,826); Gloria Norberg (Reg. No. 36,706); David M. O'Dell (Reg. No. 42,044); T. Murray Smith (Reg. No. 30,222); and Chien Wei Chou (Reg. No. 41,672).

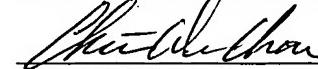
Please address all correspondence and telephone calls regarding this application to:

David M. O'Dell  
Attorney for Applicants  
Haynes and Boone, LLP  
901 Main Street, Suite 3100  
Dallas, TX 75202-3789  
972-739-8635 / 214-200-0853 - Fax

The undersigned is the representative for the Assignee of the entire right, title, and interest in the patent application identified above. A copy of the assignment or other documents in the chain of title are attached.

The undersigned (whose title is supplied below) is authorized to act on behalf of the Assignee.

Taiwan Semiconductor Manufacturing Company, Ltd.

  
\_\_\_\_\_  
Chien-Wei Chou  
Title: Director, IP Division

Date

**A S S I G N M E N T**

WHEREAS, we,

(1) Ko-Pin Chang	of	No. 11, Lane 223, Sec. 5, Fu-an Rd. Annan District, Tainan City 709, Taiwan, R.O.C.
(2) Jui-An Shih	of	No. 230, Bade 1 <sup>st</sup> Rd. Sinsing District, Kaohsiung City 800 Taiwan, R.O.C.
(3) Hui-Tang Liu	of	No. 18-4, Lane 459, Yong 2 <sup>nd</sup> St. Yongkang City, Tainan County 710 Taiwan, R.O.C.
(4) Simon Chang	of	No. 3-3, Lane 26, Guanye N. Rd. Pingzhen City, Taoyuan County 324 Taiwan, R.O.C.
(5) Nain-Sung Lee	of	5F, No. 8, Lane 141, Shih Pin Rd. Shin Chu City, Taiwan, R.O.C.
(6) Yung-Chang Peng	of	No. 133, Sianjheng 1 <sup>st</sup> St. Jhubei City, Hsinchu County 302 Taiwan, R.O.C.

have invented certain improvements in

**AUTOMATIC N2 PURGE SYSTEM FOR 300MM FULL AUTOMATION FAB**

for which we have executed an application for Letters Patent of the United States of America,

       of even date filed herewith; and  
X filed on April 8, 2004 and assigned application number 10/821,156; and

WHEREAS, we authorize the attorney of record to update this document to include Patent Office information as deemed necessary (i.e., filing date, serial number, etc.);

WHEREAS, Taiwan Semiconductor Manufacturing Company, Ltd., ("TSMC"), No. 8, Li-Hsin Rd. 6, Science-Based Industrial Park Hsin-Chu, Taiwan 300-77, Republic of China, is desirous of obtaining the entire right, title, and interest in, to and under the said invention and the said application in the United States of America and in any and all countries foreign thereto;

NOW, THEREFORE, for One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and other good and valuable consideration, we have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said TSMC, its successors, legal representatives, and assigns, the entire right, title, and interest in, to and under the said invention, and the said application, and all divisional, renewal, substitutional, and

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Patent / Docket No. 24061.83 / TSMC2003-0893  
Customer No. 27683

continuing applications thereof, and all Letters Patent of the United States of America which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which may be filed for said invention in any country or countries foreign to the United States of America, and all extensions, renewals, and reissues thereof, and all prior patents and patent applications from which a filing priority of the above-described patent application may be obtained, including the right to collect past damages; and we hereby authorize and request the Commissioner of Patents of the United States of America, and any official of any country or countries foreign to the United States of America, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said invention to the said TSMC, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to said TSMC, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, renewal, substitutional, continuing, and reissue applications, make all rightful declarations and/or oaths and generally do everything possible to aid the said TSMC, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said invention in all countries.

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Inventor Name: Ko-Pin Chang

Residence Address: No. 11, Lane 223, Sec. 5, Fu-an Rd.  
Annan District, Tainan City 709, Taiwan, R.O.C.

Dated: ✓ 04/15/2004

Ko-Pin Chang  
Inventor Signature

Inventor Name: Jui-An Shih

Residence Address: No. 230, Bade 1<sup>st</sup> Rd.  
Sinsing District, Kaohsiung City 800, Taiwan, R.O.C.

Dated: ✓ 04/15/2004

Jui-An Shih  
Inventor Signature

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Patent / Docket No. 24061.83 / TSMC2003-0893  
Customer No. 27683

Inventor Name: Hui-Tang Liu

Residence Address: No. 18-4, Lane 459, Yong 2<sup>nd</sup> St.  
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Dated: ✓ 4/15/2004

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Inventor Name: Simon Chang

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Dated: ✓ 4/15/2004

(Simon Chang)  
✓ Cheng Chang Chang  
Inventor Signature

Inventor Name: Nain-Sung Lee

Residence Address: 5F, No. 8, Lane 141, Shih Pin Rd.  
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Dated: ✓ 4/15/2004

Nain-Sung Lee  
Inventor Signature

Inventor Name: Yung-Chang Peng

Residence Address: No. 133, Sianjheng 1<sup>st</sup> St.  
Jhubei City, Hsinchu County 302, Taiwan, R.O.C.

Dated:

4/15/2004

Yung-Chang Peng  
Inventor Signature

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